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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/615,764	PARRY ET AL.
	Examiner	Art Unit	
	Gerald Smarth	2146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-3,7-16,25-29 and 41-53* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-3,7-16,25-29 and 41-53* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>07/09/2003</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

1. The instant application having Application No. 10/615764 has a total of claims pending in the application; there are 4 independent claims and 27 dependent claims, all of which are ready for examination by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 7-16, 25-28, 41, 45-47, & 51-53 rejected under 35 U.S.C. 103(a) as being unpatentable over Muto(US 2002/0116480) in view of Kurz (US 2002/0075500).

Regarding claim 1, Muto teaches a method of providing email messages to a printing device, *(Muto discloses the present invention has been developed to solve the above mentioned problems, and the first object of the present invention is to provide a data transfer process apparatus, a device, a network system, a data transfer method, and a storage medium capable of having the user who manages the device recognize the status of the device*

at an appropriate timing by transmitting by electronic mail the transmission

data generated according to the message for the status information about

the device based on the status change of the device and the destination

information; Page 1 paragraph 10) said method comprising attaching a

memory module storing said email messages to a printing device consumable.

Muto does not specifically teach method comprising attaching a memory module

storing said email messages to a printing device consumable.

However Kurz does teach not specifically teach method comprising attaching a

memory module storing said email messages to a printing device consumable.

(***Kurz discloses a method for providing information to a user comprising:***

providing a printing machine; installing a replaceable component in the

printing machine, the replaceable component including a memory storage

device, the memory storage device containing data including an

identification code of the replaceable component; Page 1 column 9 lines1-6

Kurz further discloses the predetermined information allows the user to

solve a problem with respect to the CRU during the life of the CRU. In

addition, an electronic e-mail message may be sent to the user, to a User

Interface (UI), or to a display window to supplement the printed document;

Page 2 column 22 lines 13-18)

Both Muto and Kurtz are from the same field of endeavor, Printing/Toner

cartridge systems.

It would be obvious to a person of ordinary skill in the art at the time of the

invention to modify the Muto's data transfer system to include the replaceable

consumable printing device with memory. One of ordinary skill in the art would

have been motivated to make this modification in order to have a more efficient

and direct way to notify users about errors, problems, consumption and

manufacturer information of printing device consumables.

A user may be informed when a marking material in a CRU is at a level too low to

confidently print any further jobs. Once a user is signaled of a problem, a further

problem is that, at a time of recognized need, the user may not have the

necessary information readily in their possession in order to make a decision with

respect to a replacement CRU. For example, the user may not possess the

manufacturer's recommended CRU replacement model, the user may not know

where to order the CRU, the user may not have the CRU manufacturer or

vendor(s) contact information, the user may not know how to remove and recycle

the CRU, or the user may not know how to install the replacement CRU. Such

beneficial information is most useful when a user is notified that a CRU will soon

run out of a substance or when the CRU is at or near the end of its useful life. In

view of these problems, the present invention proposes a method and system

which provides a user with various useful information concerning the CRU in the

form of a printed document. The method and system makes the CRU information

available to the user at the source of the problem, and at an identified time of

need in the printing machine. The information is provided in one convenient

place, in the form of a printed document; Kurtz Page 1 Paragraph 3 & 4.

Therefore, it would be obvious to combine Muto and Kurz to arrive to the

limitations of claim 1.

Regarding claim 2, Muto in view of Kurz taught the method of claim 1, as described above. Kurz also teaches further comprising: installing said printing device consumable in said printing device; and interfacing said printing device and said memory module. (***Kurz discloses a method for providing information to a user comprising: providing a printing machine; installing a replaceable component in the printing machine, the replaceable component including a memory storage device, the memory storage device containing data including an identification code of the replaceable component; Page 1 column 9 lines1-6)***

Regarding claim 3, Muto in view of Kurz taught the method of claim 2, as described above. Kurtz also teaches further comprising uploading said email messages from said memory module to a memory of said printing device. (***Kurz discloses a method for providing information to a user comprising: providing a printing machine; installing a replaceable component in the printing machine, the replaceable component including a memory storage device, the memory storage device containing data including an identification code of the replaceable component; Page 1 column 9 lines1-6. Kurtz further discloses the predetermined information allows the user to solve a problem with respect to the CRU during the life of the CRU. In addition, an electronic e-mail message may be sent to the user, to a User Interface (UI), or to a display window to supplement the printed document;***

Page 2 column 22 lines 13-18. Kurtz discloses the control unit of the printing machine may read the current image total from the CRUM of each CRU and, using the image run count from the memory of the printing machine, calculate a new current image total for the respective CRUM reflecting the number of images remaining on the CRU. The control unit may then write the new current image total back into the CRUM of each CRU; Page 2 paragraph 25 lines 4-11)

Regarding claim 7, Kurz in view of Muto based on the same motivation in claim 1 teaches a method for providing email messages for email alerts from a printing device*(Muto fig. 10), (Muto discloses the present invention has been developed to solve the above mentioned problems, and the first object of the present invention is to provide a data transfer process apparatus, a device, a network system, a data transfer method, and a storage medium capable of having the user who manages the device recognize the status of the device at an appropriate timing by transmitting by electronic mail the transmission data generated according to the message for the status information about the device based on the status change of the device and the destination information; Page 1 paragraph 10)* said method comprising: storing email messages on a memory module; attaching said memory module to a printing device consumable; installing said printing device consumable with attached memory module in a printing device; *(Kurtz discloses a method for providing information to a user comprising: providing a printing machine;*

installing a replaceable component in the printing machine, the replaceable

component including a memory storage device, the memory storage device

containing data including an identification code of the replaceable

component; Page 1 column 9 lines1-6. Kurtz further discloses the

predetermined information allows the user to solve a problem with respect

to the CRU during the life of the CRU. In addition, an electronic e-mail

message may be sent to the user, to a User Interface (UI), or to a display

window to supplement the printed document; Page 2 column 22 lines 13-

18) and interfacing said memory module with said printing device. ***(Kurtz***

discloses a memory storage device functionally associated with the

container, the memory storage device including data about the customer

replaceable unit; transferring the data in the memory storage device to the

printing machine; Page 2 lines 10-14)

Regarding claim 8, Muto in view of Kurz taught the method of claim 7, as

described above. Kurz further teaches wherein said printing device consumable

comprises a toner cartridge. ***(Kurtz discloses a printing or copying machine***

may comprise replaceable CRU(s) such as a photoreceptor cartridge, a

developer cartridge, a toner cartridge, an ink cartridge, printhead, and print

cartridge each of which is generally designed to function for a preset

number of images in the form of prints or copies; Page 2 Paragraph 18

lines 1-6)

Regarding claim 9, Muto in view of Kurtz taught the method of claim 7, as

described above. Kurtz also teaches further comprising uploading said email

messages from said memory module to a memory unit of said printing device.

(Kurtz discloses the control unit of the printing machine may read the

current image total from the CRUM of each CRU and, using the image run

count from the memory of the printing machine, calculate a new current

image total for the respective CRUM reflecting the number of images

remaining on the CRU. The control unit may then write the new current

image total back into the CRUM of each CRU; Page 2 paragraph 25 lines 4-

11)

Regarding claim 10, Muto in view of Kurtz taught the method of claim 9, as

described above. Muto further teaches comprising sending an email alert to one

or more recipients using one of said email messages indicative of a condition of

said printing device. *(Muto fig.10, fig, 11)*

Regarding claim 11, Muto in view of Kurz taught the method of claim 10, as

described above. Muto further teaches wherein said email messages comprise

fields for containing printing device information. *(Muto discloses in FIG. 10,*

reference numeral 1001 denotes a mail header portion, that is, a data

portion containing the transmission information about electronic mail, and

comprises the information indicated by 1002 to 1005; Page 5 paragraph 65

lines 5-8)

Regarding claim 12, Muto in view of Kurz taught the method of claim 11, as

described above. Muto further teaches wherein said printing device information

comprises an identification of said printing device. *(Muto discloses in FIG. 10,*

reference numeral 1001 denotes a mail header portion, that is, a data

portion containing the transmission information about electronic mail, and

comprises the information indicated by 1002 to 1005; Page 5 paragraph 65

lines 5-8)

Regarding claim 13, Muto in view of Kurz taught the method of claim 11, as

described above. Muto further teaches wherein said printing device information

comprises a quantification of a remaining amount of a consumable. *(Muto*

discloses FIG. 6 shows an example of the status message data showing

each status of the device stored in the device control unit of the device

shown in FIG. 1 according to the first embodiment of the present

invention; Page 20 paragraph 20)

Regarding claim 14, Muto in view of Kurz taught the method of claim 11, as

described above. Kurz also teaches wherein said email message comprises an

order for additional consumables sent to a provider of said consumables. *(Kurz*

discloses For machines connected to a PC/network, at S310, an electronic

e-mail message is sent to a user(s) indicating the predetermined

information, for example, a message indicating low CRU life for a particular

CRU along with information for ordering a replacement CRU including

identification number and contact information including vendor(s),

manufacturer(s), or third parties including their respective address, phone

number, facsimile number, e-mail address, Uniform Resource Locator

(URL) address, and combinations thereof; Page 3 paragraph 31 lines 1-10)

Regarding claim 15, Muto in view of Kurz the method of claim 10, as described

above. Muto also teaches wherein said sending an email alert comprises:

monitoring operation of said printing device for occurrence of a trigger event;

inserting said printing device information into said email messages; and sending

said email alert using said email messages in response to said trigger event,

wherein said email messages are specific to the trigger event detected. *(Muto*

discloses FIG. 10 shows an example of transmitting electronic mail when

an error occurs in the device generated by the network control unit of the

device shown in FIG. 7 according to the first and third embodiments of the

present invention; Page 2 Paragraph 24)

Regarding claim 16, Kurz in view of Muto taught the method of claim 15, as

described above. Muto further teaches comprising receiving user input to

specify a list of trigger events. *(Muto fig. 8, & 9)*

Regarding claim 25, Kurz in view of Muto teaches the method of claim 7, as

described above. Muto further teaches wherein said uploading said email

message elements to printing device memory comprises: determining if previous

email message elements already exist in said printing device memory; *(Mutu*

discloses the mail notification setting information obtaining unit 1108

obtains the mail notification setting information set by the client apparatus

1301 through the network interface 1114. The mail notification setting

information registration unit 1109 updates the mail notification setting

information stored in the mail notification setting information memory 1107

according to the mail notification setting information obtained by the mail

notification setting information obtaining unit 1108. In addition, if a mail

notification condition that, for example, a status notification is issued only

when an error occurs is changed in the above mentioned mail notification

setting information, then the device status notification condition setting

unit 1110 sets a status notification condition of the device 1101 notified by

the device control unit 1102; Page 6 paragraph 85) and uploading said email

message elements to printing device memory if no previous email message

elements are found. *(Mutto discloses in the network control unit 103, the*

device status change detection unit 107 obtains the information (status

information) about the status of the device 101 from the device control unit

102. The mail message generation unit 108 generates transmission data to

be transmitted to the client apparatus 301 according to the information

about the status of the device 101 obtained from the device status change

detection unit 107, and the notification information (destination

information). Furthermore, the mail message generation unit 108 sets the

***reply destination address of the electronic mail in the above mentioned
transmission data. The reply destination address refers to the address to
which an answer is transmitted in response to the electronic mail; Page 3
paragraph 41, 43)***

Regarding claim 26, Mutto in view of Kurz teaches the method of claim 9,
wherein said uploading said email message elements to printing device memory
comprises: determining if previous email messages already exist in said memory
unit of said printing device; and performing a replacement action if previous email
message elements are found. ***(Muto discloses in the network control unit
103, the device status change detection unit 107 obtains the information
(status information) about the status of the device 101 from the device
control unit 102. The mail message generation unit 108 generates
transmission data to be transmitted to the client apparatus 301 according
to the information about the status of the device 101 obtained from the
device status change detection unit 107, and the notification information
(destination information). Furthermore, the mail message generation unit
108 sets the reply destination address of the electronic mail in the above
mentioned transmission data. The reply destination address refers to the
address to which an answer is transmitted in response to the electronic
mail; Page 3 paragraph 41, 43)***

Regarding claim 27, Kurz in view Muto taught the method of claim 26, as

described above. Muto further teaches wherein said performing a replacement action comprises replacing one or more of said previous email messages with one or more email messages from said memory module. *(Muto discloses li step S1502, the network control unit 1103 compares the contents between the received mail notification setting information and the mail notification setting information stored in the mail notification setting information memory 1107 in the network control unit 1103. If it is determined that there is a change in the mail notification setting information, control is passed to step S1503. If it is determined that there is no change in the mail notification setting information, then the process terminates; Page 7 Paragraph 101)*

Regarding claim 28, Kurz in view of Muto further teaches the method of claim 26, as described above. Muto further teaches wherein said performing a replacement action comprises adding one or more of said email messages from said memory module to said previous email messages. *(Moto discloses li step S1502, the network control unit 1103 compares the contents between the received mail notification setting information and the mail notification setting information stored in the mail notification setting information memory 1107 in the network control unit 1103. If it is determined that there is a change in the mail notification setting information, control is passed to step S1503. If it is determined that there is no change in the mail notification setting information, then the process terminates; Page 7 Paragraph 101)*

Regarding claim 41, Kurz in view of Muto based on the same motivation in claim

1 teaches discloses a consumable for use with a printing device, said

consumable comprising: a printing device consumable; a memory module

attached to said printing device consumable; *(Kurz discloses a method for*

providing information to a user comprising: providing a printing machine;

installing a replaceable component in the printing machine, the replaceable

component including a memory storage device, the memory storage device

containing data including an identification code of the replaceable

component; Page 1 column 9 lines1-6 Kurz further discloses the

predetermined information allows the user to solve a problem with respect

to the CRU during the life of the CRU. In addition, an electronic e-mail

message may be sent to the user, to a User Interface (UI), or to a display

window to supplement the printed document; Page 2 column 22 lines 13-

18.) and email messages stored on said memory module *(Muto discloses FIG.*

18 shows an example of transmitting electronic mail when a substitute

status message stored in the network control unit is applied if an error

occurs in the device shown in FIG. 1 according to the third embodiment of

the present invention; Page 2 paragraph 32)

Regarding claim 45, Kurz in view of Muto taught the consumable of claim 41, as

described above. Kurz further comprising a wired interface for said memory

module for interfacing and communicating with a printing device. *(Kurz disclose*

to enable the CRUM to be electrically connected and disconnected with the printing machine on installation or removal of the CRU, contact pads are provided. Terminal blocks and a terminal board may be used to complete the electrical connection between the CRUM and a control unit of the printing machine; Page 2 paragraph 19 lines 4-9)

Regarding claim 46, Kurz in view of Muto taught the consumable of claim 41, as described above. Kurz also teaches further comprising an email message interface stored on said memory module which, when uploaded to a printing device, allows access and use of said email messages on said memory module. (*Kurz discloses a method for providing information to a user comprising: providing a printing machine; installing a replaceable component in the printing machine, the replaceable component including a memory storage device, the memory storage device containing data including an identification code of the replaceable component; Page 1 column 9 lines1- 6. Kurtz further discloses the predetermined information allows the user to solve a problem with respect to the CRU during the life of the CRU. In addition, an electronic e-mail message may be sent to the user, to a User Interface (UI), or to a display window to supplement the printed document; Page 2 column 22 lines 13-18. Kurtz discloses the control unit of the printing machine may read the current image total from the CRUM of each CRU and, using the image run count from the memory of the printing machine, calculate a new current image total for the respective CRUM*

reflecting the number of images remaining on the CRU. The control unit

may then write the new current image total back into the CRUM of each

CRU; Page 2 paragraph 25 lines 4-11)

Regarding claim 47, Kurz in view of Muto based on the same motivation in claim

1 teaches a printing device comprising: a printing device controller with an email

engine *(Muto fig. 1 element 103 & element 108)* for using email messages

provided by a memory module attached to a printing device consumable; a

printing device memory storing said email engine; and a printing device interface

disposed and configured to interface and communicate with said memory module

attached to a printing device consumable supplied to said printing device. (*Kurz*

discloses a method for providing information to a user comprising:

providing a printing machine; installing a replaceable component in the

printing machine, the replaceable component including a memory storage

device, the memory storage device containing data including an

identification code of the replaceable component; Page 1 column 9 lines1-6

Kurtz further discloses the predetermined information allows the user to

solve a problem with respect to the CRU during the life of the CRU. In

addition, an electronic e-mail message may be sent to the user, to a User

Interface (UI), or to a display window to supplement the printed document;

Page 2 column 22 lines 13-18)

Regarding claim 51, Kurz, and Muto taught the printing device of claim 47,

wherein said printing device interface comprises a wired interface. *(Kurz*

disclose to enable the CRUM to be electrically connected and disconnected

with the printing machine on installation or removal of the CRU, contact

pads are provided. Terminal blocks and a terminal board may be used to

complete the electrical connection between the CRUM and a control unit of

the printing machine; Page 2 paragraph 19 lines 4-9)

Regarding claim 52, Kurz in view of Muto teaches the printing device of claim 47,

as described above. Further comprising a user interface for controlling said

printing device. *(Muto discloses in the network control unit 1103, the mail*

notification setting screen generation unit 1105 generates GUI (Graphical

User Interface) data displayable on the GUI of the WEB browser, etc.

operating in the client apparatus 1301. The GUI data generated by the mail

notification setting screen generation unit 1105 is transmitted to the client

apparatus 1301 through the network interface 1114, thereby providing a

GUI for setting mail notification as shown in FIG. 13 in the client apparatus

1301. The WEB browser of the client apparatus 1301 interprets the received

GUI data, and displays a screen as shown in FIG. 13. Thus, the user can set

mail notification without an application program exclusively used to set

mail notification; Column 6 paragraph 82)

Regarding claim 53, Kurz in view of Muto teaches the printing device of claim 47,

as described above. Muto wherein said controller is further configured to upload

an email message interface from said memory module and execute said email

message interface to access email messages stored on said memory module.

(Muto discloses in the network control unit 1103, the mail notification

setting screen generation unit 1105 generates GUI (Graphical User

Interface) data displayable on the GUI of the WEB browser, etc. operating in

the client apparatus 1301. The GUI data generated by the mail notification

setting screen generation unit 1105 is transmitted to the client apparatus

1301 through the network interface 1114, thereby providing a GUI for

setting mail notification as shown in FIG. 13 in the client apparatus 1301.

The WEB browser of the client apparatus 1301 interprets the received GUI

data, and displays a screen as shown in FIG. 13. Thus, the user can set

mail notification without an application program exclusively used to set

mail notification; Column 6 paragraph 82. Mutto further discloses the mail

notification setting screen memory 1106 stores screen information required

for the GUI data generated by the mail notification setting screen

generation unit 1105. The mail notification setting information memory

1107 stores the currently set mail notification setting information

(transmission setting information) such as, for example, the destination of

electronic mail, a notification condition, etc., and the information is referred

to when GUI data is generated by the mail notification setting screen

generation unit 1105; Page 6 paragraph 83)

4.   Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Kurz and Muto in view of Narushima (US Patent 6831755).

Regarding claim 29, Kurz in view of Muto teaches the method of claim 26, as

described above. Kurz and Muto do not teach wherein said performing a

replacement action requires an administration setting, password, or other form of

authentication.

However Narushima teaches wherein said performing a replacement action

requires an administration setting, password, or other form of authentication.

 (Narushima discloses a step of checking the password before

updating/rewriting software program column 17 lines 12-25)

        Treptow, Kurz, and Narushima are from the same field of endeavor,

Printing/Toner cartridge systems.

        It would be obvious to a person of ordinary skill in the art at the time of the

invention to modify Kurtz and Muto's replaceable.   One of ordinary skill in the art

would have been motivated to make this modification in order to have authorized

personnel making the updates.

        Therefore, it would be obvious to combine Kurtz, Muto, and Narushima to

arrive to the limitations of claim 29.

5.   Claim 42 rejected under 35 U.S.C. 103(a) as being unpatentable over

Kurz in view of Hatasa (US 2003/0214546).

Regarding claim 42, Kurz taught the consumable of claim 41, as described

above. Hatasa teaches further comprising a wireless interface for said memory

module for interfacing and communicating with a printing device.

Although Kurz teaches claim 41, Kurz does not teach comprising a wireless

interface for said memory module for interfacing and communicating with a

printing device.

However Hatasa teaches comprising a wireless interface for said memory

module for interfacing and communicating with a printing device. *(Hatasa*

discloses referring to FIG. 8, in the bottom portion of the internal space of

the printer main assembly 201, there is disposed a secondary scan

mechanism (unshown) comprising a feed roller 204, a driving motor 205,

etc. A sheet of printing paper P is conveyed frontward so that it opposes

the ink jet head 203 from underneath; Page 4 Paragraph 64. Hatasa also

discloses further, in the top portion of the internal space of the printer main

assembly 210, there is disposed a single communication unit 206, as both a

power supplying means and a wireless communicating means. Not only

does this communication unit 206 electromagnetically induce electric

current in the corresponding induction coil 138 of the ink cartridge 100, but

also it wirelessly exchanges predetermined types of information with the

first portion 132 of the radio antenna 131 of the ink cartridge 100. However,

there a four ink cartridges 100 different in type, which are moved in the

direction in which they are aligned as described above. Therefore, the

single communication unit 206 wirelessly communicates with each of the

four ink cartridges 100 as each ink cartridge 100 is moved into the area in

which the communication unit 206 falls into communication range RS of

each ink cartridge 100, as shown in FIG. 9.; Page 4 paragraph 64)

Both Kurtz and Hatasa are from the same field of endeavor, Printing/

Toner cartridge systems.

It would be obvious to a person of ordinary skill in the art at the time of the

invention to modify the Kurtz replaceable consumable printing device to include

the wireless interface of Hatasa.   One of ordinary skill in the art would have been

motivated to make this modification in order to eliminate the fear that the data

communication between the printer main assembly 201 and the ink container 100

might be unsatisfactory due to the electrical contact errors between them

traceable to the ink 104; Hatasa Page 5 Paragraph 84.

Therefore, it would be obvious to combine Kurtz and Hatasa to arrive to

the limitations of claim 42.

6.   Claims 43 & 44 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kurz and Hatasa (US 2003/0214546) in view of Richards (US

Patent 6532351).

Regarding claim 43, Kurz in view of Hatasa taught the consumable of claim 42,

as described above. Kurz and Hatasa do not teach wherein said wireless

interface comprises a radio frequency interface.

However, Richards teaches wherein said wireless interface comprises a radio frequency interface. **(Richards discloses the method of communicating with other printer component via wireless communication means, such as by infrared or RF; Column 5 lines 10-32)**

Richards is from the same field of endeavor, Printing/ Toner cartridge systems. It would be obvious to a person of ordinary skill in the art at the time of the invention to modify Kurtz and Hatasa's wireless consumable interface to include an infrared wireless communication interface of Richard. One of ordinary skill in the art would have been motivated to make this modification in order to a verity of different Wireless interfaces which are well known.

Therefore, it would be obvious to combine Kurz, Hatasa and Richards to arrive to the limitations of claim 43.

Regarding claim 44, Kurz in view of Hatasa taught the consumable of claim 42, as described above. Richards teaches wherein said wireless interface comprises an infrared interface.

(Richards discloses the method of communicating with other printer component via wireless communication means, such as by infrared or RF; Column 5 lines 10-32)

7.   Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurtz and Muto in view of Hatasa (US 2003/0214546).

Regarding claim 48, Kurtz in view of Muto taught the printing device of claim 47,

as described above. Further comprising a wireless interface for said memory

module for interfacing and communicating with a printing device.

Although Kurz and Muto taught claim 41, they do not teach comprising a wireless

interface for said memory module for interfacing and communicating with a

printing device.

However Hatasa teaches comprising a wireless interface for said memory

module for interfacing and communicating with a printing device. *(Hatasa*

discloses referring to FIG. 8, in the bottom portion of the internal space of

the printer main assembly 201, there is disposed a secondary scan

mechanism (unshown) comprising a feed roller 204, a driving motor 205,

etc. A sheet of printing paper P is conveyed frontward so that it opposes

the ink jet head 203 from underneath; Page 4 paragraph 64. Hatasa also

discloses further, in the top portion of the internal space of the printer main

assembly 210, there is disposed a single communication unit 206, as both a

power supplying means and a wireless communicating means. Not only

does this communication unit 206 electromagnetically induce electric

current in the corresponding induction coil 138 of the ink cartridge 100, but

also it wirelessly exchanges predetermined types of information with the

first portion 132 of the radio antenna 131 of the ink cartridge 100. However,

there a four ink cartridges 100 different in type, which are moved in the

direction in which they are aligned as described above. Therefore, the

single communication unit 206 wirelessly communicates with each of the

four ink cartridges 100 as each ink cartridge 100 is moved into the area in

which the communication unit 206 falls into communication range RS of

each ink cartridge 100, as shown in FIG. 9.; Page 4 paragraph 64)

Kurtz, Muto and Hatasa are from the same field of endeavor, Printing/ Toner

cartridge systems.

It would be obvious to a person of ordinary skill in the art at the time of the

invention to modify Kurtz and Muto's email notification consumable printing

device to include the wireless interface of Hatasa. One of ordinary skill in the art

would have been motivated to make this modification in order to eliminate the

fear that the data communication between the printer main assembly 201 and the

ink container 100 might be unsatisfactory due to the electrical contact errors

between them traceable to the ink 104; Hatasa Page 5 Paragraph 84.

Therefore, it would be obvious to combine Kurz, Mutto and Hatasa to

arrive to the limitations of claim 48.

8.   Regarding Claims 49 & 50 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kurz, Muto, Hatasa and in view of Richards.

Regarding claim 49, Kurz, Muto, and Hatas taught the printing device of claim 48,

as described above. They do not teach wherein said wireless interface

comprises a radio frequency interface.

However, Richards teaches wherein said wireless interface comprises a radio

frequency interface. **(Richards discloses the method of communicating with**

other printer component via wireless communication means, such as by

infrared or RF; Column 5 lines 10-32)

Richards is from the same field of endeavor, Printing/ Toner cartridge systems.

It would be obvious to a person of ordinary skill in the art at the time of the

invention to modify Kurz, Muto, and Hatasa's wireless consumable interface to

include an infrared wireless communication interface Richards.   One of ordinary

skill in the art would have been motivated to make this modification in order to a

verity of different Wireless interfaces which are well known.

Therefore, it would be obvious to combine Kurz, Muto, Hatasa and

Richards to arrive to the limitations of claim 49.

Regarding claim 50, Kurz, Muto, and Hatasa teaches the printing device of claim

48, as described above. Richards further teaches wherein said wireless interface

comprises an infrared interface. **(Richards discloses the method of**

communicating with other printer component via wireless communication

means, such as by infrared or RF; Column 5 lines 10-32)

Conclusion

9. The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See MPEP 707.05 ©.

10. The following reference teaches execution of trial data.

US 5805810

US 2003/0072031

US 6925268

US 2005/0063714

US 2003/0182378

The examiner requests, in response to this Office action, support be shown for language added to any original claims on amendment and any new claim. That is indicated support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald Smarth whose telephone number is (571)270-1923. The examiner can normally be reached on Monday-Friday(7:30am-5:00pm)est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571)272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

/Gerald Smarth/

Examiner, Art Unit 2146

/Jeffrey C Pwu/

Supervisory Patent Examiner, Art Unit 2146